Application Name: Wallowa River Fish Passage Green Valley Ranch

By: Grande Ronde Model WS Foundation

Offering Type: Open Solicitation

Application Type: Technical Assistance

OWEB Region: Eastern Oregon
County: Wallowa
Coordinates: 45.400016,-117.251808

Applicant:
Jesse Steele
1114 J Avenue
La Grande OR 97850-2073
(541) 663-0570
jesse@grmw.org

Payee:
Mary Estes
1114 J Avenue
La Grande OR 97850
(541) 663-0570
mary@grmw.org

Project Manager:
Ian Wilson
936 W. North Street
Enterprise Or 97828
(541) 426-0389
ian@grmw.org

Budget Summary:
OWEB Amount Requested: $52,118
Total Project Amount: $65,871

Administrative Information

Abstract

Provide an abstract statement for the project. Include the following information: 1) Identify the project location; 2) Briefly state the project need; 3) Describe the proposed work; 4) Identify project partners.

A partial fish passage barrier has been identified at a point of diversion on the Wallowa River, approximately river mile 42.5, 2.25 miles south/southeast of Enterprise in Wallowa County, Oregon, Township 02S, Range 44E, Sec. 12. GPS Coordinates: Lat.: 45.400016, Long.: -117.251803. The Wallowa River is part of the Grande Ronde Basin.

The point of diversion consists of wood posts, dam boards and tarpaulins used to divert water, creating potential jump height barriers to juvenile and adult life stages of ESA threatened species of spring/summer Snake River Chinook salmon, summer Snake River steelhead and bull trout. Fish passage problems and water quality as a result of irrigation withdraws have been identified in the Wallowa County Nez Perce Salmon Recovery plan and the Grande Ronde Subbasin Plan. This reach is also identified as a tier I high priority for restoration in the Wallowa County Atlas planning for limiting factors, anthropogenic barriers and decreased water quantity. The water withdraw at the diversion does not have a head gate infrastructure, making the control of water delivery dependent on impounding water at the aging point of diversion further exasperating fish passage problems. Installation of a head gate would allow controlled water delivery to the fish screen and ditch while simultaneously reducing water withdrawn, improving fish passage.
The ODFW screen shop is recommending a roughened channel, similar to other projects completed in the region, that would allow fish passage while maintaining the point of diversion. In addition, ODFW is recommending a head-gate be installed to control water delivery to the ditch.
ODFW screens shop is proposing a cost share of 60% for implementation (up to 75k) and is seeking a 40% cost share for engineering and help with permitting. Other supporting partners include: ODFW district fish biologist, ODFW habitat project lead (technical assistance), and NPT habitat program NEO (technical assistance).

Location Information

What is the ownership of the project site(s)?

❑*Public land (any lands owned by the Federal government, the State of Oregon, a city, county, district or municipal or public corporation in Oregon)*

✓*Private (land owned by non-governmental entities)*

Please select one of the following Landowner Contact Certification statements:

● I certify that I have informed all participating private landowners involved in the project of the existence of the application, and I have advised all of them that all monitoring information obtained on their property is public record.

❍ I certify that contact with all participating private landowners was not possible at the time of application for the following reasons: Furthermore, I understand that should this project be awarded, I will be required by the terms of the OWEB grant agreement to secure cooperative landowner agreements with all participating private landowners prior to expending Board funds on a property.

Please include a complete list of participating private landowners

Doug and Malinda Saturno
SATURNO LAND COMPANY OR, LLC
41 S PALOUSE ST
WALLA WALLA WA,99362

Kirk Makin
MAKIN FARMS, INC
83285 EGGLESON LN
ENTERPRISE OR,97828

Skyler Willis
85106 JOSEPH HWY
ENTERPRISE OR,97828

❑ *This grant will take place in more than one county.*

Permits

Other than the land-use form, do you need a permit, license or other regulatory approval of any of the proposed project activities?

● Yes
❍ No

For Details Go to Permit Page

I acknowledge that I am responsible for verifying applicable permits, licenses, and General Authorizations required for the project, and can update information at grant agreement execution.

✓ *Yes*

Racial and Ethnic Impact Statement

Racial and Ethnic Impact Statement

❍ The proposed grant project policies or programs could have a disproportionate or unique POSITIVE impact on the following minority persons. (indicate all that apply)

❍ The proposed grant project policies or programs could have a disproportionate or unique NEGATIVE impact on the following minority persons. (indicate all that apply)

● The proposed grant project policies or programs WILL HAVE NO disproportionate or unique impact on minority persons.

Insurance Information

❑*Working with hazardous materials (not including materials used in the normal operation of equipment such as hydraulic fluid)*

❑*Earth moving work around the footprint of a drinking water well*

❑*Removal or alteration of structures that hold back water on land or instream including dams, levees, dikes, tidegates and other water control devices (this does not include temporary diversion dams used solely to divert water for irrigation)*

❑*Applicant's staff or volunteers are working with kids related to this project (DAS Risk assessment tool not required, additional insurance is required)*

❑*Applicant's staff are applying herbicides or pesticides (DAS Risk assessment tool not required, additional insurance is required)*

Additional Information

❑*This project affects Sage-Grouse.*

Problem Statement

Describe the watershed problem this Technical Assistance Application seeks to address.

Oregon Department of Fish & Wildlife has been contacted by irrigators that operate an irrigation diversion that needs regular maintenance to insure water delivery. Continued failure and maintenance of the diversion has led to a request to modify the structure to improve water withdrawal. Currently water is withdrawn from one of two channels at this location. The diversion is located on the river right channel and a secondary channel by-passes the location on river left. While passage is currently present through the river left channel, the proposed actions on the right channel would impact adult and juvenile fish passage at the point of withdrawal. Furthermore, if the left channel became disconnected, a naturally occurring possibility, fish passage could be eliminated. This is of concern as this reach of the Wallowa River is a core spawning and rearing area of ESA listed Snake River Spring/Summer Chinook salmon, Snake River steelhead, and Bull Trout. This barrier is currently not on the ODFW barrier inventory.

This reach of the Wallowa River is located on an unconfined alluvial fan comprised mostly of glacial till resulting from Pleistocene glacial activity associated with the Wallowa Mountains. Historically there was high bedload associated with annual flows and the channel was highly dynamic creating and abandoning channels with regularity.

Presently the dam located at the outflow of Wallowa Lake controls the annual discharge though this reach. Record of flow through this reach is limited to data collection at the town of Enterprise, Oregon. Oregon Water Resources Department operates Station 13329100 near RM 40.8. Flow data from this gaging station begins in 2015 running to the current date. Peak annual mean daily flows for 2016-2019 were 228, 331, 258 and 296 cfs respectively and minimum mean daily flows were 9.8, 14, 8.28 and 13.9 cfs. The location of the gage station is problematic for flow recurrence estimation at the project location due to irrigation water withdrawal above and below the diversion location as well as groundwater/surface water recharge. Ordinary high water (bankfull) discharge estimates would need to be field verified. The reach appears naturally to be a gaining reach with many springs located in the vicinity. The dam also prevents historical sediment supply, which over time has probably led to minor incision and flood plain disconnect.

Discussions with the local Watermaster have identified three water rights certificates served from the Snyder point of diversion (certificate/application #s 48573 CF, 11084 OR and app S 88596 – OWRD).

Multi-threaded channel networks, dominated by pool-riffle sequences, characterize this reach of the Wallowa River. Pools primarily are created by lateral scour or pool forming large wood/wood jams. There are very little areas of noticeable erosion and undercut banks are present. Fish habitat quantity and quality is generally good. Large wood recruitment is occurring promoting complex habitat formation and pool formation.

The riparian area overall is in good condition. It is dominated by Engelmann spruce and deciduous woody species such as willows, River Birch, Mountain Alder, and Red-osier Dogwood. The riparian area is degraded in areas where grazing or landowner “maintenance” occurs.

Currently there are two channels at this withdrawal location. The diversion is located on the river right channel and directs flows into an ODFW fish screen. Water is then either pumped to a center pivot irrigation system or continues down the ditch to the point of use.

The current diversion structure is annually maintained and constructed of rock, wood, and ditch cloth/tarps. It was probably a wood dam with removable headboards historically. When installed the structure is likely a fish passage barrier on the river right channel for juveniles and potentially adults depending on the time of installation. At this time, the irrigators have proposed modifications that would likely trigger, but not meet, fish passage requirements.

This stretch of the Wallowa River contains many of the native freshwater species found in this region. In this reach of the Wallowa River, salmonids in particular are species of special concern due to their water quality and habitat requirements and include; Snake River Spring/Summer Chinook, Snake River summer steelhead, Bull Trout, Redband Trout, and Mountain Whitefish. Many non-game fish, such as Lamprey, Large Scale Suckers, Speckled Dace, sculpin and others are present.

Three species found in this reach of the Wallowa River are listed under the Endangered Species Act (ESA) as threatened; Snake River Spring/Summer Chinook, Snake River Summer steelhead, and Bull Trout with lamprey being translocated to the Wallowa Basin. Sockeye Salmon and Coho Salmon were extirpated in the early 1900’s and 1960’s, respectively. A table of periodicity of use by species of concern will be provided. As seen from the attached periodicity table, species utilize this reach at various stages of their life history. In particular, this is a core

spawning/rearing area for ESA listed Spring/Summer Chinook Salmon.

Does this project address one or both of the following:

✓ *Habitat needs for one or more Endangered Species Act-listed species and/or species of concern*

✓ *Concerns identified on 303(d) listed streams*

❑ *No*

Project History

Continuation - Are you requesting funds to continue work on a project previously funded by OWEB?

❍ Yes

● No

Resubmit - Have you submitted, but were not awarded an OWEB application for this project before?

❍ Yes

● No

Phased - Is proposed work in this application a phased technical assistance project?

❍ Yes

● No

Plans and Salmon

Is the proposed technical assistance activity(ies) identified in a local assessment or other plan?

● Yes

❍ No

List the name of the assessment or plan being implemented by this project. The description must include the purpose of the plan.

The Grande Ronde Subbasin Plan Supplement identifies the importance of this project in the following sections for the Upper Wallowa River:

1. 5.2.1.1, page 37, GRSBP. Provide connectivity between functioning habitats.
2. 3.2.3, pg. 57, GRSBP. Restoration of the Upper Wallowa, lower Lostine and mid-Wallowa geographic areas has the greatest potential to increase abundance and productivity (Wallowa-Lostine Spring Chinook)
3. 3.2.3, pg. 58, GRSBP. The egg incubation life history stage was affected by high sediment in the upper Wallowa (Spring Chinook Salmon)
4. 3.2.3, pg. 75, GRSBP. Upper Wallowa River – sediment impacting egg incubation, impacting age 0,1 life stages (Wallowa River Steelhead)
5. 3.5.2, pg. 198, GRSBP. Upper Wallowa River, Wallowa 11 – 19 The towns of Enterprise and Joseph are located in this area. There are also numerous irrigation diversions, some impassible near Joseph (bull trout, steelhead, Chinook)

The Wallowa County-Nez Perce Salmon Habitat Recovery Plan identifies the importance of this project in the following sections of the Wallowa River (Wallowa Lake to Spring Cr.):

1. WCNPSRP, pgs. 106. Cobble Embeddedness (Medium). Cobble embeddedness can make it difficult for salmon to build their redds. It is also an indication that the eggs may be smothered by sediment.

2. WCNPSRP, pgs. 104. Excess Fine Sediment (High Priority). Excess fine sediment in the substrate smothers eggs and leads to cobble embeddedness.
3. WCNPSRP, pgs. 107. Physical Barriers (Study). Physical barriers can stop salmon migration.
The Wallowa Atlas planning matrix, developed by subbasin partners identifies the importance of this project in the following subwatershed (WLL4), listed as a Tier I high priority for restoration:
1. 1.1 Anthropogenic Barriers - High priority for Spring Chinook, Steelhead, Bull Trout and Lamprey.
2. 9.2 Decreased Water Quantity - High priority for Spring Chinook, Steelhead, Bull Trout and Lamprey.
The ESA Recovery Plan for Snake River Spring/Summer Chinook Salmon (Oncorhynchus tshawytscha) & Steelhead (Oncorhynchus mykiss) identifies the importance of this project in the following population groups:
1. 5.2.1, pg. 134, Tables 5-3 RPSRSS. Tributary Habitat Limiting Factors for Lostine/Wallowa R. spring Chinook - excessive sediment, physical barriers and altered low flows
2. 5.2.1, pg. 135, Tables 5-4 RPSRSS. Tributary Habitat Limiting Factors for Wallowa R. steelhead - excessive sediment, physical barriers and altered low flows
3. 6.6.2, pg. 219, RPSRSS. Enhance spawning and eggs and alevin survival by reducing sediment in spawning gravels in tributaries (Wallowa River steelhead)

Will this project benefit salmon or steelhead?

● Yes
❍ No

✓Snake River Basin - Steelhead
✓Snake River Spring/Summer-run - Chinook Salmon

How will the resulting technical assistance project benefit salmon or steelhead or their habitat?

Anthropogenic physical barriers in the reach containing Snyder diversion have been identified in four different regional salmon and steelhead recovery documents as limiting factors and areas to focus restoration. Additionally, excess sediment supply in this reach of the Wallowa River has also been identified as contributing to problems with egg incubation for steelhead and salmon as well as cobble embeddedness, reducing spawning habitat. Altered or low flows are also an important consideration when planning restoration work in this reach of the Wallowa River as pointed out in recovery documents. This reach of the Wallowa River is recognized as having some of the largest potential benefit for salmonids from restoration work in the Grande Ronde Subbasin Plan and the Wallowa Restoration Atlas.
Replacing the existing irrigation structure of boards and tarpaulins with roughened channel will restore connectivity and passage for aquatic species as well as allowing sediment transportation, improving cobble embeddedness and egg incubation. Installing a head gate structure will improve efficiency of water delivery to the ditch and reduce waste water bypassed unnecessarily.

Proposed Solution

Goal, Objectives, and Activities

State your project goal. A goal statement should articulate desired outcomes (the vision for desired future conditions) and the watershed benefit.

The project goal is to restore annual fish passage for all aquatic species, increase sediment transportation and increase irrigation efficiency at the project site. The focus of restoring passage will be realized for all life stages of species listed on the Endangered Species Act (Snake River Spring Chinook salmon, Snake River Summer steelhead, and bull trout) as well as pacific lamprey. Sediment transportation will facilitate spawning and egg incubation in an important spawning reach and irrigation improvements will reduce water waste, leaving more water instream.

List specific and measurable objectives. Objectives support and refine the goal by breaking it down to steps for achieving the goal. (NOTE: If you quantify your objectives, ensure all numbers match the metrics listed in your selected habitat types.) Provide up to 7 objectives.

Objective #1

Objective

1. Design a project that will improve year round passage for all life stages of aquatic organisms in the Wallowa River at the project site.

Describe the project activities. Activities explain how the objective will be implemented.

A roughened type channel design is proposed to replace the aging board and tarp diversion, allowing water to be diverted for irrigation while maintaining fish passage. Similar projects have been completed at Lostine River diversions (Sheep Cr, Tulley Hill and City of Lostine) with successful outcomes. Gradient, topography, structure and management lead to a projected roughened channel type design solution. After topographic survey is complete and 15% design is drafted, a suite of alternatives will be evaluated. Alternatives could include a roughened channel simulating the channel that naturally exists, a step pool type structure appropriate for low gradient locations, or a combination of the two. It is certain that a concrete type structure or off channel fish ladder will not be considered. These project types do not mimic natural conditions, are costlier to implement, and are difficult to impossible to move through ESA Section 7 consultation processes.

Objective #2

Objective

2. Design a project that will restore natural bed load and sediment transport processes through the project reach.

Describe the project activities. Activities explain how the objective will be implemented.

A roughened type channel design is proposed to replace the aging board and tarp diversion, allowing water to be diverted for irrigation while maintaining fish passage. Similar projects have been completed at Lostine River diversions (Sheep Cr, Tulley Hill and City of Lostine) with successful outcomes. Gradient, topography, structure and management lead to a projected roughened channel type design solution. After topographic survey is complete and 15% design is drafted, a suite of alternatives will be evaluated. Alternatives could include a roughened channel simulating the channel that naturally exists, a step pool type structure appropriate for low gradient locations, or a combination of the two. It is certain that a concrete type structure or off channel fish ladder will not be considered. These project types do not mimic natural conditions, are costlier to implement, and are difficult to impossible to move through ESA Section 7 consultation processes.

Objective #3

Objective

3. At TA project completion have a project design complete with specifications, completed ESA consultation, and all permits in hand appropriate for construction contractor solicitation.

Describe the project activities. Activities explain how the objective will be implemented.

A restoration team will be assembled and include representatives from ODFW, NMFS, and US Fish and Wildlife Service. Completing the team will be the landowners, ditch company, Nez Perce Tribe and GRMW representation. The makeup of this team will assure the interests of all concerned entities are considered in design.

List the major project activities and time schedule estimated for completing the technical assistance project and the future restoration project.

Element	Description	Start Date	End Date
Design of roughened channel	Design a project that will improve year round passage for all life stages of aquatic organisms in the Wallowa River at the project site.	5/2020	3/2021
Environmental compliance	At TA project completion have a project design complete with specifications, completed ESA consultation, and all permits in hand appropriate for construction contractor solicitation.	5/2020	3/2021
Project implementation	ODFW screen shop implements project as designed and within in-water work window	7/2021	8/2021
Construction restoration	Restore site through planting and native grass seed. Restore fences if removed.	9/2021	9/2021
Project closeout	Final report and project closeout	10/2021	10/2021

Element	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021
Design of roughened channel							
Environmental compliance							
Project implementation							
Construction restoration							
Project closeout							

Technical Assistance Type

What type of technical assistance do you need in support of future voluntary restoration actions? (choose one)

- ● *Technical Design and Engineering -- Details will follow.*
- ❍ *Resource Assessment and Planning*

Technical Design and Engineering

Does the technical design project address a restoration action identified in a federal recovery plan or regional assessment ?

- ● Yes
- ❍ No

Regional Assessments or Recovery Plans
ESA Recovery Plan for Snake River Spring/Summer Chinook & Snake River Basin Steelhead
Northwest Power and Conservation Council Grande Ronde Subbasin Plan
Oregon Conservation Strategy

For each plan chosen above, describe how your project is consistent with specific recovery/restoration actions cited in that plan.

The Grande Ronde Subbasin Plan Supplement identifies the importance of this project in the following sections for the Upper Wallowa River:

1. 5.2.1.1, page 37, GRSBP. Provide connectivity between functioning habitats.
2. 3.2.3, pg. 57, GRSBP. Restoration of the Upper Wallowa, lower Lostine and mid-Wallowa geographic areas has the greatest potential to increase abundance and productivity (Wallowa-Lostine Spring Chinook)

3. 3.2.3, pg. 58, GRSBP. The egg incubation life history stage was affected by high sediment in the upper Wallowa (Spring Chinook Salmon)
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The ESA Recovery Plan for Snake River Spring/Summer Chinook Salmon (Oncorhynchus tshawytscha) & Steelhead (Oncorhynchus mykiss) identifies the importance of this project in the following population groups:
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2. 5.2.1, pg. 135, Tables 5-4 RPSRSS. Tributary Habitat Limiting Factors for Wallowa R. steelhead - excessive sediment, physical barriers and altered low flows
3. 6.6.2, pg. 219, RPSRSS. Enhance spawning and eggs and alevin survival by reducing sediment in spawning gravels in tributaries (Wallowa River steelhead)

Oregon Conservation Strategy

Limiting Factor: Passage Barriers and Channel Complexity

Recommended Approach

Where possible, work with landowners and regulatory agencies to restore natural flow conditions on streams impacted by barriers. Eliminate passage barriers or improve passage at existing barriers to provide travel corridors for fish and wildlife. Remove or replace culverts or other passage barriers with structures that mimic natural conditions as closely as possible (e.g., bridges or open-bottom arch culverts). Determine potential effectiveness of providing passage around dams for fish and wildlife (e.g., amphibians, reptiles, mammals). Develop new habitat sites where possible. Provide sufficient channel complexity to maintain ecological benefits for fish and wildlife. Support and encourage beaver dam-building activity.

Monitoring strategy for Oregon Plan for Salmon and Watersheds

Fish Passage – Fish passage is required in all waters of the state in which native migratory fish are currently or were historically present.
o ODFW is responsible for determining the current or historical presence of native migratory fish and for reviewing and approving passage plans, waivers, or exemptions from providing passage. Regulations covering fish passage can be found ORS 509.580-910 and in OOAR 635, Division 412.
o The owner or operator of artificial obstructions located in these waters must address fish passage requirements prior to abandonment or specific trigger events (e.g., installation, major replacement, a fundamental change in permit status).

Design

Select the level of design that will be produced through this application.

❍ 10-30%: Conceptual design (evaluation of alternatives, concept-level plans, design criteria for project elements, rough cost estimates).

❍ 30-85%: Preliminary design (selection of the preferred alternative, draft plans, draft design report, preliminary cost estimates).

● 85-100%: Final design (final design report, plans and specifications, contracting and bidding documents, monitoring plan, final cost estimate).

Explain why the design level is the appropriate level to address the watershed problem described in the Problem Statement and describe the data that currently exists, or needs to be collected, that will inform the technical or engineering design being proposed.

At this time an 85 to 100% final design is being pursued to assist ODFW screen shop to cost share the implementation of the project. Final design and permitting will allow implementation to proceed. Removing the existing diversion structure that is a partial barrier during low flows and dry years will improve fish passage for all listed ESA species and life stages, and improve sediment transportation.

Were design alternatives considered?

❍ Yes

● No

Products

List the products that will be produced as a result of this grant.

Title	Brief Description	Responsible Party
Roughened channel	Engineered stream channel to improve fish passage while maintianing point of diversion.	ODFW, GRMW, and consulting firm
Headgate	Install headgate at Green Valley Ranch point of diversion to control water delivery to irrigators	ODFW screens shop

Review

List the names of the people or agencies that will be involved in the review of the design.

Name	Agency
Ian Wilson	Grande Ronde Model Watershed
Kate Frenyea	Nez Perce Tribe
Winston Morton	Oregon Department of Fish and Wildlife
Kyle Bratcher	Oregon Department of Fish and Wildlife

Once the design is complete and prior to implementation, who must approve the design?

The design will be approved by a committee of the aforementioned reviewers, culuture resource staff, ACOE/DSL staff and the local land-use planner.

Estimated total acres of habitat affected by this technical assistance design.

26.3

Estimated total miles of stream affected by this technical assistance design.

0.10

Wrap-Up

Outcomes

Describe how the proposed technical assistance activities will address the watershed problem identified in the Problem Statement.

Watershed problems described in the problem statement and goals and objectives sections include fish passage, specifically during late summer season low instream flows influenced by upstream irrigation withdrawals, altered sediment transport processes, and irrigation diversion. Each of these issues will be addressed in the engineered plan set submitted with a final implementation application.

Several irrigation diversions were installed in the Wallowa River with the primary to replace gravel push-ups dams used for many decades to divert irrigation water. Push-up dams are a method by which streambed material is piled in stream to check water and divert it down the irrigation canal. This method while effective at diverting irrigation water is disruptive to the stream, causes erosion and sedimentation, and in the case of full channel-spanning dams, cause a barrier to aquatic organism movement both up and downstream. Push-up dams are usually washed out during high spring flows and have to be re-built annually. The Green Valley Ranch diversion has to be annually maintained to divert water with reduced aquatic organism passage, and imminent failure could possibly result in a return to push-up dams to divert irrigation water.

The design solution to improve structure longevity is to build engineered roughened channels with native material over a longer project footprint. This allows for a shallower river gradient that reduces erosive forces at high flow, provides additional latitude to meet State and federal fish passage guidelines including jump height and water velocity, and adds an improved point of diversion into the project design. Over the last 8-years four roughened channels have been installed to improve irrigation diversions in Wallowa County. Each of those projects has informed the development of the Green Valley Ranch design, all are functioning as intended providing passage conditions that meet both State and federal criteria, are demonstrating improved sediment transport processes, and at this time structural integrity is not in question.

Specific Actions

Mobilization: This action at the beginning of the project is when all equipment is transported to the project area. The staging area is prepared, raw material is delivered and the work site is prepared for construction.

Water Control: Water control will be accomplished by diverting the Wallowa River flow around the work area in the Green Valley Ranch ditch. While the bulk of flow will be passed around the work area subsurface flow will continue to wet the work area. For this reason, a sediment sump and 2 silt fences will be installed at the bottom of the work area. This action will help maintain low turbidity and reduce fine sedimentation during construction.

Clearing and Grubbing Project site: For this project clearing and grubbing will be minimally required. As the majority of work will occur in the Wallowa River channel riparian vegetation will not need to be removed, the irrigation ditch or secondary river channels will be used as the work area water bypass. Equipment access to the river will need to be installed at approximately mid project. Access will be over an existing culvert in the irrigation ditch and down the riverbank to the project. In 2012 at the City of Lostine diversion we were able to preserve all riparian shrub and canopy vegetation and only minimally disturbed herbaceous vegetation at the work access point. Conditions are the same at the Green Valley Ranch diversion. Where necessary, clearing and grubbing will be accomplished with an excavator and spoils will be transported with a dump truck.

Grade Control Structures: An appropriate number of grade control structures will be installed in the project area. They will be built with large boulders, span the channel, and have a shallow V-shape pointing upstream. They have been sized to remain stable during expected high flow events. At project completion they will be subsurface features that will maintain channel invert elevation, concentrate expected low flows to the center of the channel, and meet jump height and flow velocity standards for fish passage. Grade control structures will be installed with an excavator and boulder material will be transported for installation with a dump truck.

Engineered Riffle Streambed Mix: One aspect to consider when working in rivers is sediment transport. Installing large-scale roughness features in the form of boulders will create a hydraulically diverse environment in which sediment transport is anticipated to be maintained. Upon a successful technical assistance grant, a consultant will determine the appropriate percent slope for an engineered riffle complete with streambed simulation material will be

used between the grade control structures. This will aid in natural sediment transport through the project reach.
Site Restoration: Site restoration is expected to be minimal but where necessary will include erosion control seeding of disturbed ground, planting riparian shrubs and trees, grading access routes to natural ground contour and stabilizing the staging area.
Monitoring
1. Annual Wallowa River redd survey.
2. Photo points established per OWEB guidelines.

Project Management

List the key participants, their roles, and qualifications relevant to the technical assistance activities.

Role	Name	Affiliation	Qualifications	Email	Phone
Project management oversight and inspection	Ian Wilson	Grande Ronde Model Watershed	Wallowa County Project Coordinator, Bachelors of Science in Fisheries and Wildlife and professional fisheries biologist.	ian@grmw.org	(541) 426-0389 Ext._____
Technical support including design, fisheries and fish salvage	Kyle Bratcher	Oregon Department of Fish and Wildlife	Bachelors of Fish and Wildlife Science, Assistant Fisheries Biologist, Acting District Fisheries Biologist.	kyle.w.bratcher@state.or.us	(541) 426-3279
Technical support including design, fisheries, and fish salvage	Kate Frenyea	Nez Perce Tribe	Bachelors of Fisheries, northeast Oregon/southwest Washington habitat project leader	kathrynf@nezperce.org	(541) 432-2506
Project management, oversight and inspection	Chuck Simpson	Oregon Department of Fish and Wildlife	Screens Shop Manager	chuck.simpson@state.or.us	(541) 426-3279

Budget

Item	Unit Type	Unit Number	Unit Cost	OWEB Funds	External Cash	External In-Kind	Total Costs
Salaries, Wages and Benefits							
GRMW project manager - restoration team coordination, engineering management and direction, Archeology management and direction, landowner management, and ESA section 7 consultation coordination	Hours	115	$45.00	$0	$0	$5,175	$5,175
GRMW Executive Director - project review and oversight	Hours	20	$45.00	$0	$0	$900	$900
GRMW office manager - scheduling, ordering, distribution	Hours	20	$45.00	$0	$0	$900	$900
GRMW GIS Technician - maps and engineering support	Hours	5	$45.00	$0	$0	$225	$225
GRMW IT manager - project document, coordination and distribution	Hours	5	$45.00	$0	$0	$225	$225
			Category Sub-total	$0	$0	$7,425	$7,425
Contracted Services							
Design and Site investigation - engineering services - project management	Hours	16	$140.00	$2,240	$0	$0	$2,240
Site investigation - engineering services - kickoff meeting/site visit/survey breakdown/landwoner/agency coordination	Hours	18	$140.00	$2,520	$0	$0	$2,520
Site investigation - engineering services - Topographic survey (2 person crew)	Hours	60	$105.00	$0	$0	$6,300	$6,300
Design engineering - Hydrology/Hydraulic analysis/HECRAS modeling	Hours	55	$120.00	$6,600	$0	$0	$6,600
Design engineering - prepare prelimary design report	Hours	47	$120.00	$5,640	$0	$0	$5,640
Design engineering - meeting with agencies to review report	Hours	4	$140.00	$560	$0	$0	$560
Design engineering - prepare 30% design plans	Hours	65	$120.00	$7,800	$0	$0	$7,800
Design engineering - Draft 30% Design Meeting with Agencies	Hours	4	$140.00	$560	$0	$0	$560
Design engineering - Prepare Draft 80% Design Plans and Technical Specifications	Hours	40	$120.00	$4,800	$0	$0	$4,800
Prepare Cost Estimates	Hours	6	$120.00	$720	$0	$0	$720
Design engineering - Draft 80% Design Meeting with Agencies	Hours	4	$140.00	$560	$0	$0	$560

Design engineering - Prepare Final Plans, Specifications, Bidding and Contract Documents	Hours	50	$120.00	$6,000	$0	$0	$6,000
Design and Site investigation engineering - QA/QC	Hours	6	$160.00	$960	$0	$0	$960
404/DSL Removal/fill permits - project management	Hours	4	$105.00	$420	$0	$0	$420
404/DSL Removal/fill permits - gathering data, analyzing impacts - Prepare 404/DSL permit application, agency and landowner coordination	Hours	36	$85.00	$3,060	$0	$0	$3,060
Analyzing Impacts - 404/DSL Fill/Removal Quantities	Hours	6	$90.00	$540	$0	$0	$540
Archeological services - Pre field background research data collection, Archeological survey (pedestrian), Shovel test probe excavations (20 shovel test probes)	Hours	28	$75.00	$2,100	$0	$0	$2,100
Archeological services - Report preparation and drafting	Hours	24	$75.00	$1,800	$0	$0	$1,800
Archeological services - OR SHPO Archival Search (known fee)	Each	1	$500.00	$500	$0	$0	$500
Category Sub-total				$47,380	$0	$6,300	$53,680
Travel							
GRMW travel	Miles	50	$0.55	$0	$0	$28	$28
Category Sub-total				$0	$0	$28	$28
Materials and Supplies							
			$0	$0	$0	$0	$0
Category Sub-total				$0	$0	$0	$0
Equipment							
			$0	$0	$0	$0	$0
Category Sub-total				$0	$0	$0	$0
Other							
			$0	$0	$0	$0	$0
Category Sub-total				$0	$0	$0	$0
Modified Total Direct Cost Amounts				$47,380	$0	$13,753	$61,133
Indirect Costs							
Federally Accepted 'de minimis' Indirect Cost Rate (up to 10%)		10%			Indirect Cost Total: $4,738		
Total				$52,118	$0	$13,753	$65,871

* = OWEB funds excluded from indirect.

If the budget includes unusually high costs and/or rates, provide justification for those costs and/or rates.

If the budget identifies a contingency amount for specific line item(s) within the Contracted Services and Materials and Supplies budget categories, explain the specific reasons a contingency is needed for each line item.

Contingencies are line-item specific and cannot be used for other costs.

Funding and Match

Fund Sources and Amounts

Organization Type	Name	Source Note	Contribution Type	Amount	Description	Status
Non-Governmental Organization	Grande Ronde Model Watershed	Non-profit watershed council	In-Kind - Labor	$12,689	Project management and administrative services	Pending
State	Oregon Department of Fish and Wildlife	Fish Screens shop	Cash	$26,550	Implementation funds	Pending
Fund Source Cash Total	**$26,550**		**Fund Source In-Kind Total**	**$12,689**		

Match

Contribution Source-Type: Description	Amount
Grande Ronde Model Watershed-In-Kind - Labor: Project management and administrative services	$12,689
Oregon Department of Fish and Wildlife-Cash: Implementation funds	$26,550
Match Total	**$39,239**

Do match funding sources have any restrictions on how funds are used, timelines or other limitations that would impact the portion of the project proposed for OWEB funding?

❍ Yes
● No

Do you need state OWEB dollars (not Federal) to match the requirements of any other federal funding you will be using to complete this project?

❍ Yes
● No

Does the non-OWEB cash funding include Pacific Coast Salmon Recovery Funds?

❍ Yes
● No

Uploads

Support Letters: Green Valley Ranch LOA signed.pdf **- Landowner agreement**

Map: GreenValleyRanch_APE.pdf **- APE map**

Photos: Diversion photos.pdf **- Diversion photos**

Permit Page

No Permits have been identified for this application.

Green Valley Ranch Diversion

Cooperative Agreement

Between

Kirk Makin, Saturno Land Co. Oregon LLC. Doug and Malinda Saturno Members and Skyler Willis_____(Cooperator(s)

and

Grande Ronde Model Watershed_____(Project Sponsor)

Project Name: Snyder Diversion_____ Project Number:__TBD_____

The purpose of this Cooperative Agreement between the Cooperator and the Project Sponsor is to clarify and assign project responsibilities.

1. This Cooperative Agreement is entered into to accomplish the following tasks for the following purposes (the "work"):

Task(s)	Purpose(s)
Technical Assistance Grant	Improve fish passage for all ESA listed fish
For diversion replacement	
Head gate installation	Improve water conveyance

2. The work will occur on lands owned by the Cooperator(s) located in Section(s) ____12_____, Township _____02_____, Range __44E_____, in ____Wallowa_____County. The lands are identified by _____Wallowa_____ County as tax lots ____800, 1400_____. A map showing the location of the work is attached to and incorporated into this Cooperative Agreement.

It is mutually agreed that the work will be shared as follows:

The **Cooperator** will:

Allow access to perform cultural resource surveys, construction and post project monitoring. Project is expected to be designed in 2020 and constructed in 2021 or 2022.

The **Project Sponsor** will:

A roughened type channel design is proposed to replace the aging board and tarp diversion, allowing water to be diverted for irrigation while maintaining fish passage. Similar projects have been completed at Lostine River diversions (Sheep Cr, Tulley Hill and City of Lostine) with successful outcomes. Gradient, topography, structure and management lead to a projected roughened channel type design solution. After topographic survey is complete and 15% design is drafted, a suite of alternatives will be evaluated. Alternatives could include a roughened channel simulating the channel that naturally exists, a step pool type structure appropriate for low gradient locations, or a combination of the two. It is certain that a concrete type structure or off channel fish ladder will not be considered. These project types do not mimic natural conditions, are costlier to implement, and are difficult to impossible to move through ESA Section 7 consultation processes. The project will be designed in 2020-2021 and implemented in 2021-2022.

ODFW screen shop is proposing a cost share of 60% for implementation (up to 75k) and is seeking a 40% cost share for engineering and help with permitting. Other supporting partners include: ODFW district fish biologist, Grande Ronde Model Watershed project lead (technical assistance), NPT habitat program NEO (technical assistance), ODFW fish habitat biologist (technical assistance), landowners and irrigators

It is mutually agreed that supervision, management and maintenance of the work will be shared as follows:

The **Cooperator** will:

- Permit the work to occur and remain on the Cooperator's property for a minimum of __3___ years *[normally, 2-5 years].*
- Permit the Project Sponsor and its officers, agents, employee, contractors and invitees to enter onto the property where the work is being or has been done for the purposes of performing the work, inspecting the condition of the work, monitoring the effectiveness of the work, and to perform repair or replacement of the work if necessary. Said entry shall be at times reasonably agreeable to the Cooperator.
- Manage the property where the work occurs in a manner to meet the purposes set forth in this Cooperative Agreement.
- Repair or replace work that is damaged by normal use or natural events. Repair or replacement due to catastrophic natural events is not the responsibility of the Cooperator under this Cooperative Agreement *[note: in some cases, this provision should be placed under the responsibility of the Project Sponsor, below].*
- Acknowledge that information relating to the work, including effectiveness monitoring data, is public record.

The **Project Sponsor** will:

- Conduct monitoring of the effectiveness of the work at agreed upon frequencies and prepare an annual report on the results and condition of the work which will be delivered to project funding entities and shall be a public record.

- On or about __3___ years *[normally 10 years after grant award]* the Project Sponsor will complete a final report on the results and condition of the work, including observations on the design of the work, maintenance performed and its cost, and whether the work has achieved its intended purposes, to be reviewed by the Cooperator(s) prior to submittal to project funding entities.

It is further agreed that after completion of the work, all of the improvements funded with grant funds and affixed to the land will become the property of the Cooperator, provided that the terms of this Cooperative Agreement are met. Improvements not affixed to the land and funded with grant funds, such as portable equipment, shall become the property of the Project Sponsor, upon satisfactory completion of the work.

The Cooperator shall save and hold harmless the Project Sponsor and its respective officers, agents, employees and members from all claims, suits, or actions of whatsoever nature resulting from, or arising out of, this Cooperative Agreement.

The work to be performed under this Cooperative Agreement shall begin on or about _2020_____, and is expected to be completed on __2022_____.

This agreement shall be effective upon the signature of all of the parties listed below.

AGREED:

Cooperator:

Saturno Land Co. Oregon LLC. Doug Saturno and Malinda Saturno Members

DOUG SATURNO MALINDA SATURNO

Print name of Cooperator(s)

Doug. Saturno 1-31-2020

Cooperator signature Date

Malinda Saturno 1/3/20

Cooperator signature Date

Kirk Makin Kirk Makin

Print name of Cooperator

Cooperator signature _____ Date 1/31/20

Skyler Willis
Print name of Cooperator

Cooperator signature _____ Date 1/31/20

Project Sponsor:

Ian Wilson
Print name of Project Sponsor

Project Sponsor signature _____ Date 4/14/20

***If you are signing electronically:**

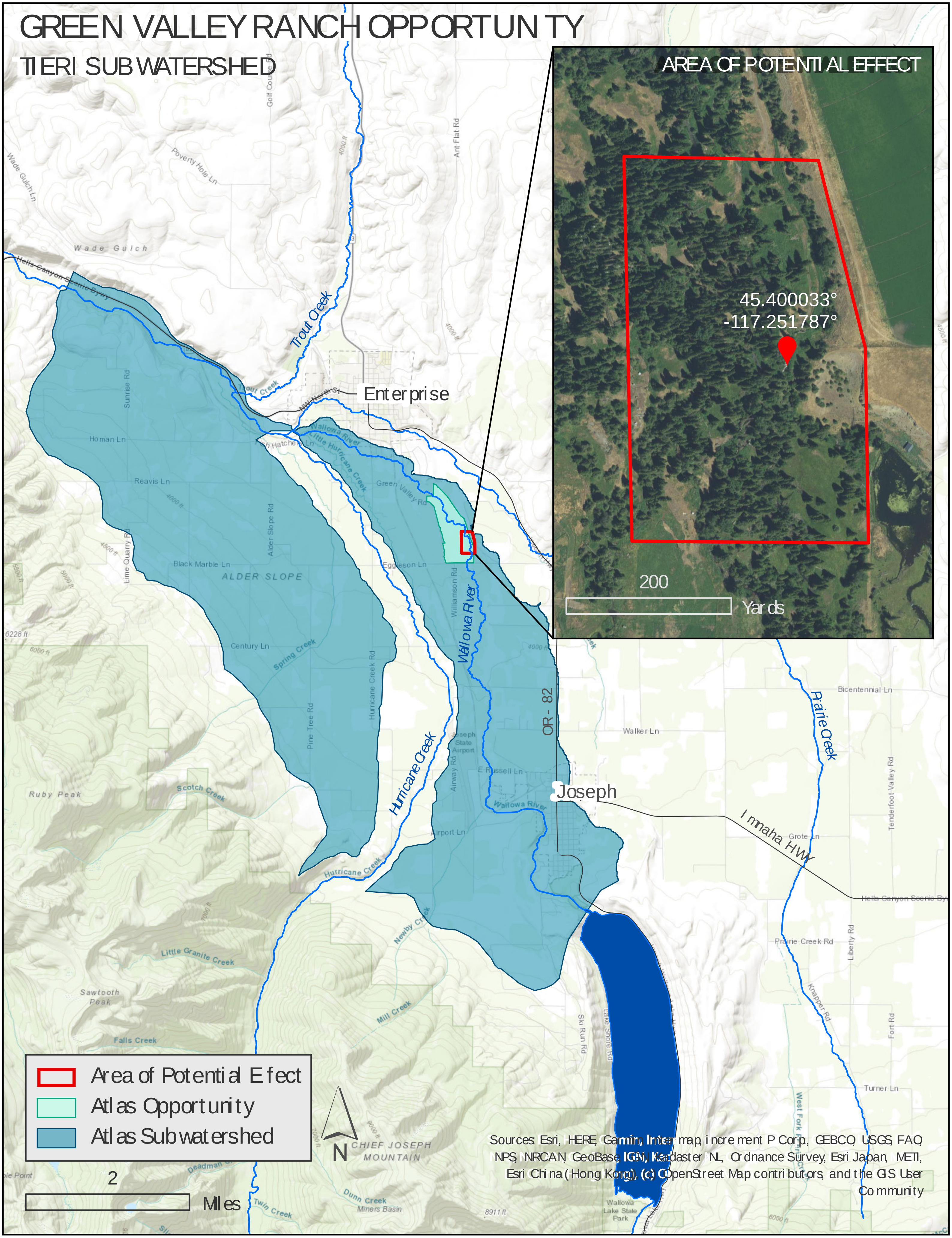
OWEB requires enforceable landowner agreements as a term of grant agreements. Electronic signatures are acceptable in contracts under state law. If your organization determines that it has suitable authentication procedures in place to verify electronic signatures it could decide to accept signatures in that form.

OWEB recommends the grantee include the following language in the LOA above the signature line:

"The individual signing on behalf of the (insert name of entity) hereby certifies and swears under penalty of applicable law that s/he is authorized to act on behalf of (insert name of entity)"

GREEN VALLEY RANCH OPPORTUNITY

TIERI SUBWATERSHED



Author: Alexandra Towne, GRMW - Date: 04.14.2020 - Datum: WGS84 UTM Zone 11N

Diversion structure – photo taken on August 22, 2019

Diversion structure- photo taken July 30, 2015

Diversion structure- photo taken July 30, 2015

Diversion structure- photo taken October 17, 2016

Diversion structure- photo taken October 17, 2016